

From arc5 at ix.netcom.com Thu Nov 3 22:04:48 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Thu, 3 Nov 2016 21:04:48 -0500
Subject: [BoatAnchors] ***JUNK MAIL*** Pretty Signal Shifter
Message-ID: <4437981DF80B410EA16D7C7BE61CDA51@DaddyPC>

Very pretty Signal Shifter.
Photos at:

<https://goo.gl/photos/xtLepKrzWkSnk5Cb7>

WYSIWYG. Not plugged-in.
\$25 plus UPS Ground shipping to PayPal
for 33 lbs. 22x16x16 from 75173
Heavy packed to survive most UPS outrages.

73 Dave S.

From navy.radio at gmail.com Mon Nov 7 15:20:18 2016
From: navy.radio at gmail.com (Nick England)
Date: Mon, 7 Nov 2016 15:20:18 -0500
Subject: [BoatAnchors] Stone Mountain GA hamfest photos
Message-ID: <CAB55hNc960o0gx0GEnKL8m8ADqRH42Xr0_r_Q=3stSCCGNcdYQ@mail.gmail.com>

<http://www.virhistory.com/ham/ga16.htm>

Stone Mountain (Lawrenceville) has been a very good fest for boatanchors the several times I have made the trip. This year was no exception. I missed getting photos of the trailer full of Gonset equipment still in the boxes. I'm sure they'll be on eBay shortly.

Other folks who attended please chime in with observations.
73 & Have Fun,
Nick England K4NYW
www.navy-radio.com

From kb8tad at gmail.com Mon Nov 7 17:14:06 2016
From: kb8tad at gmail.com (Rich Post)
Date: Mon, 7 Nov 2016 17:14:06 -0500
Subject: [BoatAnchors] Stone Mountain GA hamfest photos
In-Reply-To: <CAB55hNc960o0gx0GEnKL8m8ADqRH42Xr0_r_Q=3stSCCGNcdYQ@mail.gmail.com>
References: <CAB55hNc960o0gx0GEnKL8m8ADqRH42Xr0_r_Q=3stSCCGNcdYQ@mail.gmail.com>
Message-ID: <CAEJr0FsgyAGDyF9r328X2fvopBaWLgafvZnp33gMpii9HsspLw@mail.gmail.com>

Keep the pictures coming Nick! Always enjoy the virtual show, especially if the asking prices are visible.

Rich KB8TAD

On Mon, Nov 7, 2016 at 3:20 PM, Nick England via BoatAnchors

From arc5 at ix.netcom.com Fri Nov 11 23:44:10 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Fri, 11 Nov 2016 22:44:10 -0600
Subject: [BoatAnchors] ***JUNK MAIL*** Really Weird BF0
Message-ID: <3D3B50FD59784776BC106E4B273BC02A@DaddyPC>

Restored a Bendix 555 portable Marine DF rig.
<https://goo.gl/photos/T7rd2ET4Gp4D9bXb7>
Open IF transformer, battery corrosion,
"golden screwdriver" stuff etc. Fun little rig.
Surprisingly sensitive and the direction finder
works quite well on LF and MF.

This thing has the weirdest "BF0" circuit I've seen.
There are two boards inside- Front-end and
IF/Audio. Here is a diagram of the IF/Audio
board:
<https://goo.gl/photos/jaPgpm3Tjd22MTYr9>

The RF from the front-end inputs on Pin 4
on the red buss to First IF transistor TR-4.
RF is also fed down to an 800 cycle
audio oscillator, TR-5, which, when
"tone" mode is selected, is barely biased on until
RF appears on the red buss. This RF fully drives
the audio oscillator on, which outputs on the green
buss, goes to the Front-End board where it
goes through a "gain balance" pot- one for each band.
It comes back from the Front-end and is sent to
the Audio gain pot. Strange!
Actually works well for CW. Of course, it's not
useful for copying Sideband as it only outputs
800 cycles. Here's a demo of it copying CW,
first the audio oscillator off, then on.
<https://goo.gl/photos/LS8uFLzoXKYxfZyX6>

How about that for a "BF0?"

73 DE Dave AB5S

From gsantacana at gmail.com Sat Nov 12 11:29:42 2016
From: gsantacana at gmail.com (Guido Santacana)
Date: Sat, 12 Nov 2016 12:29:42 -0400
Subject: [BoatAnchors] SP210SX
Message-ID: <CA01yix0nHF-4bY=ri7xXteaqEwrQJAvydy4QTG0P7XjWU7SfVg@mail.gmail.com>

Gents,

I am having a period of extreme high humidity like never before. My shack is not air conditioned but I am considering a dehumidifier. Now, about the SP210SX, one of my favorites, this is the symptom:

AGC will not work until after warmup. Not even the RF gain control works in AGC mode. After a long period of warmup, then everything normalizes. This RX was completely recapped even inside the IF cans. Resistors out of tolerance were replaced, AGC tube checked and replaced. What else could this be? The other radio doing this to a lesser extent is the HQ129X. Someone must have seen this before.

73s

Guido

Guido Santacana KP4FAR

From mxc04040 at nifty.ne.jp Sat Nov 12 23:53:48 2016
From: mxc04040 at nifty.ne.jp (Katsuhiko Hirai)
Date: Sun, 13 Nov 2016 13:53:48 +0900
Subject: [BoatAnchors] ***JUNK MAIL*** Re: SP210SX
In-Reply-To: <CA01yix0nHF-4bY=ri7xXteaqEwrQJAvydy4QTG0P7XjWU7SfVg@mail.gmail.com>
References: <CA01yix0nHF-4bY=ri7xXteaqEwrQJAvydy4QTG0P7XjWU7SfVg@mail.gmail.com>
Message-ID: <20161113135347.CEAD.4E50566@nifty.ne.jp>

Dear Guido-san, KP4FAR station

Good evening to you.

I checked your problem through schematics and your mentioned status, as follows:

- 1) The circumstance of your shack without air-conditioning;
I suspect the temperature variation under a chassis would be great between turning the power on/off.
Because you informed that
"After a long period of warmup, then everything normalizes".
- 2) The disconnection between the AGC bus line and the bias bus line;

I traced the source circuit of bias voltage that has three mechanical junctions into the AVC/Manual control switch (SW-4) and both terminals of the bias cable between the radio unit and the power supply unit, pp.44 and pp.90 in the below URL.

<http://www.hammarlund.info/download/TM11-866-1948.PDF>

I suspect the SW-4 would fail to switch.

Because there are both possibilities that is aged by too much turning and is heated by the tube 6J7 (V4) which is stayed very beside the SW-4.

I learned the aged possibility into the toggle pin through the tube V4, through two URLs as follows:

*1 By the tube 6J7 dissipation power on the triode connection, 1.75Watts,
<http://www.r-type.org/pdfs/6j7-1.pdf>

*2 By the mechanical toggle bar deformed like an arch through too much switching.

[https://www.google.co.jp/search?](https://www.google.co.jp/search?q=toggle+switch+structure&rlz=1W4CHBB_jaJP566&biw=1257&bih=900&tbm=isch&imgil=d-6ckTE49NAv1M%253A%253BMid0-jMs6PymDM%253Bhttp%25253A%25252F%25252Fwww.chinaxurui.net%25252Ftoggle-switch%25252Fpost%25252Ftoggle-switch-xt-11b.htm&source=iu&pf=m&fir=d-6ckTE49NAv1M%253A%252CMid0-jMs6PymDM%252C_&usg=__dcHe9om0-FJVqY0wj1lpAxV6Q9E%3D&ved=0ahUKEwjo2IXq5KTQAHVNBHQQyjcIJg&ei=nN0nW0iaD8aq0ASlm5GgBw#imgsrc=_)

[q=toggle+switch+structure&rlz=1W4CHBB_jaJP566&biw=1257&bih=900&tbm=isch&imgil=d-6ckTE49NAv1M%253A%253BMid0-jMs6PymDM%253Bhttp%25253A%25252F%25252Fwww.chinaxurui.net%25252Ftoggle-switch%25252Fpost%25252Ftoggle-switch-xt-11b.htm&source=iu&pf=m&fir=d-6ckTE49NAv1M%253A%252CMid0-jMs6PymDM%252C_&usg=__dcHe9om0-FJVqY0wj1lpAxV6Q9E%3D&ved=0ahUKEwjo2IXq5KTQAHVNBHQQyjcIJg&ei=nN0nW0iaD8aq0ASlm5GgBw#imgsrc=_](https://www.google.co.jp/search?q=toggle+switch+structure&rlz=1W4CHBB_jaJP566&biw=1257&bih=900&tbm=isch&imgil=d-6ckTE49NAv1M%253A%253BMid0-jMs6PymDM%253Bhttp%25253A%25252F%25252Fwww.chinaxurui.net%25252Ftoggle-switch%25252Fpost%25252Ftoggle-switch-xt-11b.htm&source=iu&pf=m&fir=d-6ckTE49NAv1M%253A%252CMid0-jMs6PymDM%252C_&usg=__dcHe9om0-FJVqY0wj1lpAxV6Q9E%3D&ved=0ahUKEwjo2IXq5KTQAHVNBHQQyjcIJg&ei=nN0nW0iaD8aq0ASlm5GgBw#imgsrc=_)

3) My suggestion is to replace the SW-4 (AVC/Manual control switch) by a new one.

I appreciated your asking because I have enjoyed to inspect the functionality of this Super Pro very well, though I have no SP-210SX receiver. I could remember my junior high school days when the BC-779 were great at the shack of my neighbor ham station. Still I like this one in my heart.

Thanks again from the western Japan, Nara.

best regards,

Katsuhiko Hirai, JA3ECA now, exN8EYH in Dayton, Ohio, '80s.

On Sat, 12 Nov 2016 12:29:42 -0400

Guido Santacana via BoatAnchors <boatanchors at theporch.com> san wrote:

> Gents,

>

> I am having a period of extreme high humidity like never before. My shack
> is not air conditioned but I am considering a dehumidifier. Now, about the
> SP210SX, one of my favorites, this is the symptom:

>
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> AGC mode. After a long period of warmup, then everything normalizes. This
> RX was completely recapped even inside the IF cans. Resistors out of
> tolerance were replaced, AGC tube checked and replaced. What else could
> this be? The other radio doing this to a lesser extent is the HQ129X.
> Someone must have seen this before.
>
> 73s
>
> Guido
>
> Guido Santacana KP4FAR
> -----
> BoatAnchors mailing list
> BoatAnchors at theporch.com
> <https://minime.theporch.com/mailman/listinfo/boatanchors>

--
???? <mx04040 at nifty.ne.jp>

From arc5 at ix.netcom.com Sun Nov 13 07:49:53 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Sun, 13 Nov 2016 06:49:53 -0600
Subject: [BoatAnchors] DX Guys: Better Get Those Countries While You Can.
Message-ID: <E57548ABC0D94381B1BE47E7D0EEF35A@DaddyPC>

Interesting for the DXers among us.
You may only have a few hundred million years left
to get DXCC, so you better start hopping.

<http://tinyurl.com/zzkmox1>

From listown at nanniandjack.com Mon Nov 14 18:35:28 2016
From: listown at nanniandjack.com (Jack G F Hill)
Date: Mon, 14 Nov 2016 17:35:28 -0600
Subject: [BoatAnchors] Apparently I am the curmudgeon
Message-ID: <05c0e6bc-c380-08d2-676c-6868025da1a4@nanniandjack.com>

Gang-

I give up!
Apparently, requests to members, asking that they simply drag a mouse

over such unnecessary text as footers and signature blocks is too much for some members to handle. It seems as though editing a post to keep it relevant and on point is beyond the ken of some people.

The paradigm of a symposium is just too much for some brains to handle. "But, I just reply at work, leaving the message(s) I am replying to below, and no one objects"... is such vacuous reasoning... The is a symposium for discussing old tube radios, with occasional excursions into history, marine use, and the like. THERE IS NO NEED WHATSOEVER to repeat every character of an email one is responding to... we have digests and archives that manage those functions quite nicely.

Why, after 22 years, am I giving up trying to keep the S/N ratio up? I am just plain tired of people getting all butt-hurt and pissy when I reject a post with all the alphabet soup of footers, sig blocks and irrelevant junk cluttering what could be a valuable comment.

Up to this point, I have simply flipped on the "Moderate" switch on repeat offenders, and sent a message with the rejection explaining why and what is expected:

/What you have to say is interesting and valuable, but all the added quoted text and especially the message footers and signature blocks are not needed - we have archives and digests for maintaining the context of the thread.//

//Please edit and resubmit/

Fair warning... if you can't be bothered to edit your work and expect everyone to wade through the garbage, I will simply unsubscribe you as one who can't abide by simple courtesy and rules. The courtesy requirement starts NOW!

Edit with care and have fun with our firebottle rigs

--

Jack Hill, W4KH - BoatAnchors Listowner/Archiver
listown at nanniandjack.com

"Plus ca change, plus c'est la meme chose"

"Il n'y a que les idiots qui ne changent jamais d'idee"

From wb3fau55 at neo.rr.com Sun Nov 13 10:56:00 2016

From: wb3fau55 at neo.rr.com (wb3fau55 at neo.rr.com)

Date: Sun, 13 Nov 2016 10:56:00 -0500

Subject: [BoatAnchors] SP-200 AVC

Message-ID: <20161113155600.4JRZ7.82531.root@cdptpa-web06>

Guido, perhaps you should try some freeze mist on AVC components when warmed up.
Russ.

From bill.ripley at brame-tech.com Mon Nov 14 15:07:09 2016
From: bill.ripley at brame-tech.com (William Ripley)
Date: Mon, 14 Nov 2016 20:07:09 +0000
Subject: [BoatAnchors] Boat Anchor Track at the Albuquerque Duke City Hamfest
Message-ID:
<MWHPR14MB14232C88654CAF9FB878AC7DC5BC0@MWHPR14MB1423.namprd14.prod.outlook.com>

Gents and fellow Boat Anchor enthusiasts:

Let me introduce myself. I am Bill Ripley, KY5Q, a ham since the mid-sixties and a fairly new Boat Anchor enthusiast (restoring R-390A and WW2 Command Set Radios). I am also Chairman of the annual Albuquerque Duke City Hamfest, held each year on the 2nd weekend in August, the week before Huntsville Hamfest. We are a 3-day event (Fri-Sun) at a hotel convention center venue. We are working to become a very nice annual regional event, serving primarily the Southwest and Rocky Mountain part of the USA.

For the last several years, with help from NM Antique Radio community, we had exhibits and a smattering of very good programs that cater to that community. We are seriously considering expanding that effort and making the Antique Radio one of the major tracks of the hamfest (year after year), along with 1) Contesting / DX; 2) STEM, High Altitude Balloons, and supporting Education and Educators, 3) Public Service / General Ham Radio, and 4) Antique Radio / Restoring, Rebuilding and Designing new "Vintage Radios".

Making this a priority tenant of the hamfest means working with more keynote speakers and knowing how to better serve the interests of that community. I am looking for volunteers, advisors, and possible speakers to help me figure out what works and what does not work in trying to serve that community, and if it makes sense to try to make the DCHF a "Go- To" place for a convention / hamfest that caters to the community. Albuquerque is a pretty nice destination in August, much cooler than Dallas or Phoenix, and close to a lot of interesting places to go for a ham-vacation. I would appreciate any comments anyone might have in this regard.

Thanks in Advance,

Bill Ripley, KY5Q
Chairman of the Albuquerque Duke City Hamfest / NM State Convention

President, NM Hamvention Inc. Bill Ripley
(505) 503-7491 (Office Direct)
(505) 715-6677 (Skype Laptop "wcripley")
(505) 980-8353 (Mobile)
Bill.Ripley at Brame-Tech.com<mailto:Bill.Ripley at Brame-Tech.com>
KY5Q at arrl.net<mailto:KY5Q at arrl.net>
Please note new email address above

From k4wgd47 at gmail.com Sat Nov 19 20:33:54 2016
From: k4wgd47 at gmail.com (wg davis)
Date: Sat, 19 Nov 2016 20:33:54 -0500
Subject: [BoatAnchors] 17 Meter Beam
Message-ID: <CAL+F86LN+8UAA+5zgWSFLxHPeqFgP_tbeKwM--r_DMBMD57hRA@mail.gmail.com>

Hi Guys,

I am thinking about building an 3 or 4 Element 17 Meter Yagi
Antenna.. Do U have any
suggestions on an Software Program that an simpleton (me) could use to
complete such
a project.. I will probably get the aid/help from 1 of my Ham Buddies..
Thx. W.G.

--

73 K4WGD

From navy.radio at gmail.com Mon Nov 21 12:44:54 2016
From: navy.radio at gmail.com (Nick England)
Date: Mon, 21 Nov 2016 12:44:54 -0500
Subject: [BoatAnchors] Benson NC hamfest
Message-ID: <CAB55hNc7eULQmZf4w0pKvwz+7tTZ7nUs909G637nL1wFwYk_Ow@mail.gmail.com>

Benson is a small hamfest and last of the season around here - but usually
pretty interesting and yesterday was no exception.

Those of us up in the chilly early AM were greeted by such commonplace
boatanchors as
Eldico TR-1 & TR-75 xmtrs
Geloso xmtr
Pro-310 speaker
RME-45
Cosmic Blue National NC-155 and NC-190
and that was just the first two tailgate spaces.....

I took a few photos of some highlights
<http://www.virhistory.com/ham/benson-16.htm>

Saw many of the usual BA gang, but John K5MO must have been sleeping in....
cheers,
Nick England K4NYW
www.navy-radio.com

From k4wgd47 at gmail.com Mon Nov 21 16:51:32 2016
From: k4wgd47 at gmail.com (wg davis)
Date: Mon, 21 Nov 2016 16:51:32 -0500
Subject: [BoatAnchors] Off Subject; Speaker
Message-ID: <CAL+F86KU-cZP6LbFSLQZM2N_YGdukjyqLF76E0vGO-gqYUxHrQ@mail.gmail.com>

Hi, I am trying to surprise a Friend of mine with an External Speaker for his Kenwood TS-440S..

I know that Kenwood has an SP-430 and a SP-23; which is the better Speaker?? Which is the better sounding Speaker?? Or another Speaker.. Thx. W.G.

--

73 K4WGD

From arc5 at ix.netcom.com Thu Nov 24 19:18:24 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Thu, 24 Nov 2016 18:18:24 -0600
Subject: [BoatAnchors] ***JUNK MAIL*** TCS Transmitter Tip - Snubber
Message-ID: <C8A559366B6F4D43995AFF9D73C24D000@DaddyPC>

I've revived three TCS transmitters to original design and run them from original dynamotor supplies.
Brad W. take a look (had to replace a bearing):
<https://goo.gl/photos/p3SRrZ5Y2uomNdHe9>

All three transmitters have had an issue with arcing across the High B+ contacts on the TR relay.
This causes the PA Current meter to stay above zero while key-up and you will hear the arcing in the receiver.
If allowed to continue, the contacts will be destroyed and other damage will occur.

If you remove the transmitter from its case, lay it on its back and remove the outside PA 1625, you can access the contact set. Photo:
<https://goo.gl/photos/d4UuG29fZ6DCyFdH9>

There is just enough room to install a "snubber," which is a capacitor and resistor in series, across the contacts. Values are not critical; the one pictured is .047 1KV in series with 240 Ohms. .1 and 180 Ohms will also work. Reinstall the 1625 and make sure you have clearance. Photo:
<https://goo.gl/photos/h3XGqeCB78XtEXXN6>

This will stop the relay arcing.

73 DE Dave AB5S

From n7rk at cox.net Wed Nov 30 00:51:18 2016
From: n7rk at cox.net (Dave Hollander)
Date: Tue, 29 Nov 2016 22:51:18 -0700
Subject: [BoatAnchors] 1930's QSTs for Sale
Message-ID: <583E68D6.3080609@cox.net>

I have the 52 issues of 1930's QST's to sell as a lot. Most are in decent shape. A few issues have loose spines. Lot's of neat articles and lots of great ads.

1931 - Have May, August (no cover) and September
1932 - Missing March, June and October
1933 - Full Year
1934 - Full Year
1935 - Missing February
1936 - Missing February, March, September, October, November, December

\$100 plus shipping and I will ship international. Prefer paypal but other forms of payment OK.

73,

Dave N7RK

--

Dave Hollander N7RK
Arizona Tube Supply
<http://arizonatubesupply.com>

Ham Radio Page
<http://n7rk.com>

From arc5 at ix.netcom.com Wed Nov 30 09:41:03 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Wed, 30 Nov 2016 08:41:03 -0600
Subject: [BoatAnchors] ***JUNK MAIL*** Unknown Power Supply
Message-ID: <213A65AC969742E5BDA72979309BA434@DaddyPC>

Have a friend with a 6-Meter amplifier that uses this power supply:
<https://goo.gl/photos/uepSMpvSxbevXoJj9>
Is anyone familiar with it, or know where a diagram

may be obtained? Thanks.

From jerry7proc at yahoo.com Wed Nov 30 11:23:19 2016
From: jerry7proc at yahoo.com (Jerry Proc)
Date: Wed, 30 Nov 2016 16:23:19 +0000 (UTC)
Subject: [BoatAnchors] Lend-Lease Document
References: <209289427.4262436.1480522999374.ref@mail.yahoo.com>
Message-ID: <209289427.4262436.1480522999374@mail.yahoo.com>

Heloo Everyone,

I am trying to locate a Lend-Lease summary document which I had last seen several years ago, Perhaps the source of the document was someone on this list. That document contained production information for radios and other key war material. Seems I recall that that 12,000 No 19 sets were produced in total.

If someone has a copy of this document or can point me to a web link, it would be most appreciated.

--

Regards,
Jerry Proc
E-mail: jerry7proc at yahoo.com

From brianclarke01 at optusnet.com.au Wed Nov 30 19:57:37 2016
From: brianclarke01 at optusnet.com.au (Brian Clarke)
Date: Thu, 1 Dec 2016 11:57:37 +1100
Subject: [BoatAnchors] [Boatanchors] 12 volt supply question
In-Reply-To:
<DM5PR01MB2746D634205BFE7613857CB9CA8C0@DM5PR01MB2746.prod.exchangelabs.com>
References:
<DM5PR01MB2746D634205BFE7613857CB9CA8C0@DM5PR01MB2746.prod.exchangelabs.com>
Message-ID: <01b701d24b6d\$e954c150\$bbfe43f0\$@optusnet.com.au>

Hello Ray,

There are several considerations:

- * Safety - computer SMPSUs run directly off the mains - there is no isolation. So, the Voltage on the first filter capacitor is enough to kill you.
- * EMR - how much noise does the SMPSU generate that your receiver objects to?
- * EMC - when you PTT, what happens to the Voltage regulation? Try this first with a purely resistive load corresponding to maximum transmitter current, eg, if you need 10 A at 12 V, the load needs to be 1R2.

* SMPSUs are designed for a minimum current load - will your receiver demand this?

* What happens to output Voltage and ripple when your transmitter draws full current, especially an FM rig or if you are into heavy-duty digital modes? Check with a CRO.

The 12 V output on most computer SMPSUs is only good for about 2 A maximum, whereas the 3.3V and 5V outputs can deliver 20 to 30 A, or more. Only one of these two outputs will be used for Voltage regulation - not the 12 V output. If you want more current at 12 V, and you want it regulated, consider rewinding the 5 V winding and replacing the output capacitors to handle the higher Voltage; you will also need to alter the feedback loop to regulate to 12 V output rather than to 3.3 V or 5 V.

73 de Brian, VK2GCE

On Thursday, 1 December 2016 10:17 AM, Ray asked:

OK gang .. Can someone provide a definitive answer to this question? I see all kinds of conflicting opinions and would like to know what the thinking is here. Or, if someone here is using them for that purpose.

Computer power supplies. Can they or can they not be used to power ham rigs such as two meter rigs, or even

low power HF rigs?

From spr at earthlink.net Wed Nov 30 20:28:03 2016

From: spr at earthlink.net (spr at earthlink.net)

Date: Wed, 30 Nov 2016 17:28:03 -0800 (GMT-08:00)

Subject: [BoatAnchors] [Boatanchors] 12 volt supply question

Message-ID: <22856883.22060.1480555683795@mswamui-valley.atl.sa.earthlink.net>

Folks,

Brian is correct about the 5V versus 12V ratings of older computer power supplies. Recent ones (last 5 years, maybe more) actually deliver nearly all their power at 12V, and make the 0.8/0.9/1.1/1.2/1.5/1/8/2/5/3.3 etc. right at the demand point.

About minimum loads: some power supplies do have this issue, usually at about 10% of full load. Many do not, especially the cheaper ones, so measure to find out.

I'd worry about the RF noiose, myself.

Peace,

Scott

-----Original Message-----

>From: Brian Clarke via BoatAnchors <boatanchors at theporch.com>

>Sent: Nov 30, 2016 4:57 PM

>To: 'RAY FRIESS' <rayfrijr at msn.com>, 'boatanchors' <boatanchors at mailman.qth.net>, 'Old Tube Radios' <boatanchors at theporch.com>, boatanchors at puck.nether.net

>Subject: Re: [BoatAnchors] [Boatanchors] 12 volt supply question

>

>Hello Ray,

>There are several considerations:

>* Safety - computer SMPSUs run directly off the mains - there is no
>isolation. So, the Voltage on the first filter capacitor is enough to kill
>you.

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>to?

>* EMC - when you PTT, what happens to the Voltage regulation? Try this first
>with a purely resistive load corresponding to maximum transmitter current,
>eg, if you need 10 A at 12 V, the load needs to be $1R2$.

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>these two outputs will be used for Voltage regulation - not the 12 V output.
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>73 de Brian, VK2GCE

>

>On Thursday, 1 December 2016 10:17 AM, Ray asked:

>

>OK gang .. Can someone provide a definitive answer to this question? I
>see all kinds of conflicting opinions and would like to know what the
>thinking is here. Or, if someone here is using them for that purpose.

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>Computer power supplies. Can they or can they not be used to power ham
>rigs such as two meter rigs, or even

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>low power HF rigs?

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>BoatAnchors mailing list

>BoatAnchors at theporch.com

><https://minime.theporch.com/mailman/listinfo/boatanchors>

From brianclarke01 at optusnet.com.au Wed Nov 30 22:24:15 2016
From: brianclarke01 at optusnet.com.au (Brian Clarke)
Date: Thu, 1 Dec 2016 14:24:15 +1100
Subject: [BoatAnchors] [Boatanchors] 12 volt supply question
In-Reply-To: <15eacdc6-b32c-2b92-cec2-b74fd4ac010e@gci.net>
References:
<DM5PR01MB2746D634205BFE7613857CB9CA8C0@DM5PR01MB2746.prod.exchangelabs.com>
<01b701d24b6d\$e954c150\$bbfe43f0\$@optusnet.com.au>
<15eacdc6-b32c-2b92-cec2-b74fd4ac010e@gci.net>
Message-ID: <023b01d24b82\$65968280\$30c38780\$@optusnet.com.au>

Sorry Jim,

You need to take your exceptions to world reality, thus:

The only thing almost correct about your assertions is your first sentence and only for the USA. Everywhere else in the world, safety is taken seriously, and the SMPSU case is connected directly to the mains Ground pin in the mains plug, usually an IEC chassis connector.

The computer SMPSUs that adorn our various computers, printers and other digital devices all take the mains directly into the SMPSU box or printed wiring board. Inside that box or on that printed wiring board are:

- *EMC filters, unless of the SMPSU is of Asian origin
- *Mains fuse
- *Rectifier
- *Filter capacitor
- *Series inductor, usually the transformer primary
- *SCR

And all these are operating at your mains Voltage multiplied by $\sqrt{2}$. So, in Japan, 141 Vdc, in USA, 163Vdc, and in almost all other parts of the world, where 93% of the world's population lives, 325 Vdc. In some of the earlier SMPSUs, there was a switch to shift from direct rectification to Voltage doubling, almost entirely for the US market. In slightly later SMPSUs, this switching was automatic, based on sensing the mains input Voltage. In modern SMPSUs, the duration of pulses fed to the SCR takes care of any input mains Voltage variations; hence, the universal SMPSU running on between 90 and 264 Vac.

These items are separated along the transformer core by an isolating strip of circuit board.

On the secondary of the transformer are various low Voltage windings followed by cheap-as-chips half-wave rectifiers and their associated filter capacitors.

All provision of low Voltages comes directly from the SMPSU box or printed wiring board. Some mother boards have Point of Application regulators or

switchers to provide a local Voltage.

Only one of the output Voltages is regulated in the SMPSU. A sensing circuit comprising two resistors in series is across this regulated output, the junction of the resistors if fed to the control IC, eg, a 494 or later chip. The output of this chip is fed via an opto-isolator to drive the SCR on the primary side. All the other output Voltages are then related to this regulated output via the turns ratio in the transformer. In some SMPSUs, the 12 V line may be regulated via a 7812 or similar chip - but this is by no means universal.

73 de Brian, VK2GCE

On Thursday, 1 December 2016 1:35 PM, Ray said:

I have to take exception to some of this.

The mains power is not directly connected to case ground.

In all the desktop computer power supplies I have ever fiddled with, the rectified raw AC goes directly to the switching converter, and nowhere else, which then delivers several different high-frequency AC voltages to the rest of the circuitry. Those voltages are rectified and filtered (and regulated) before they connect to the computer.

The "raw" AC from the line never reaches the computer "innards".

Let me try this another way: The rectified and brute-force filtered DC runs the switching inverter (for lack of a better word). The high frequency AC from the SECONDARY of that transformer is what is used for the various voltages inside the computer cabinet.

If you check with a VOM, you will find that neither side of the AC line is directly connected to the cabinet or motherboard ground. The high frequency inverter transformer performs the "isolation transformer" function.

A person still has to deal with all of the other issues that were raised, including dealing with voltages approaching 200 volts (or more) DC inside the power supply, but getting electrocuted by a direct path to the incoming AC line is almost certainly not one of them.

This does not mean that a person cannot be injured by voltages found inside a desktop power supply. This can definitely happen, so caution is important. If you are not familiar with working on power supplies, of any kind, the best advice is to leave that sort of thing to someone who knows what they are doing.

The author of the article had mentioned using the 12-volt portion directly for smaller loads and modifying the 5-volt section (with appropriate component changes) for larger loads. As I said, look up the QST article for more info.

Also, and again as I pointed out, this applies to the "standard" configuration AC operated DESKTOP system. Laptops and other portable equipment may have other configurations where the above comments do not apply.

- Jim, KL7CC

From arc5 at ix.netcom.com Wed Nov 30 23:25:26 2016
From: arc5 at ix.netcom.com (David Stinson)
Date: Wed, 30 Nov 2016 22:25:26 -0600
Subject: [BoatAnchors] ***JUNK MAIL*** UK TR9D: Disaster Strikes!
Message-ID: <8B94DE577F6A4540A237A64F73F55E73@DaddyPC>

Easily the most historically-important radio in my collection is the working U.K. "Battle of Britain" TR9D HF set. Excellent article:
<http://tinyurl.com/h5c92k6>
In this example photo, the transmitter is on the left, the receiver is on the right. The radio mounts with these controls facing up.
<https://goo.gl/photos/mXf2RfoHkbB8ffN79>
The receiver has a bottom cover with a lip all-around.

In short- the roof in my storage area sprung a leak. You know, there are gremlins in the world that make sure things go just like this:
Water dripped on and through the cover over the radio. It couldn't drip just anywhere, which might have run-off harmlessly to one side. Of course not; it had to drip right on top of one of the tuning knobs and run down the tuning condensor shaft, pool between the plates for a good long while, then make a pool in the bottom of the receiver about a 16th of an inch deep and stand there long enough to do this:
<https://goo.gl/photos/MoUQ4vYZLbcxK3jj7>
The rusted caps are 0.5 uFd bypasses and couplers that appear to have Steel cases and they are rusting faster than one would imagine. I have "tacked-in"

replacements for the dead ones but wanted to keep the original parts in-situ. You might notice on the left how I've "tacked" modern resistors across the originals to bring them back down to spec without removing them.

Worse: The aluminium used for the capacitor plates is some mild variety that corrodes easily. There were a couple of mounds of corrosion between the plates that "welded" them together, shorting the cap. I was able to remove it (Lord bless the UK engineers who knew how to make a radio easy to fix), soaked the plates and corrosion with De-Oxit and, with a thin relay burnishing tool, managed to remove all the corrosion between the plates, leave a thin De-Oxit coat to retard future corrosion and save the cap.

<https://goo.gl/photos/SsSJNr7r2SBY3jcD7>

Also- in the upper-left corner of the RX bottom photo, you'll see the Microphone transformer, which had its laminations in the pooled water. I can try coats of thinned "rust converter," but a couple of the laminations have already rusted-through and fallen off. The rust may not be "cure-able" for this part.

<https://goo.gl/photos/VE7YWZVLuYnP6veF7>

Your opinion: Can I leach enough "rust converter" into these laminations to save the part?

The set is still working, but I need to get ahead of this rust. I can remove the caps, clean and stop the rust and repaint, but I need a good clean template to recreate the label. Here is the best one of the lot:

<https://goo.gl/photos/cjEdnrZVxdSeNYuq6>

So I appeal to our U.K. members:

Does anyone have a clean example of this capacitor

I could use as a template? Doesn't need to be "good;" Just clean.

Does anyone have a good TR9D

Microphone Transformer (40:1) in their junk box?

Parts list calls it: Transformer, Microphone, type 51.

Lastly- Does anyone know the specs of the carbon mikes used with this set? U.S. carbon mikes, which were designed for several volts excitation, don't work well with only 2V available.

Thanks for any help or thoughts.
73 DE Dave AB5S